SPEED POST

PRASAR BHARATI
BROADCASTING CORPORATION
BROADCASTING HOUSE : ALL INDIA RADIO
NEW DELHI -110001

NO. 1 (2)/BH/ Console/ 2012-13-E Dated: 12.02.2013

To,

M/s ----------

LIMITED TENDER ENQUIRY

Dear Sir/ Madam,

Sealed tender on two bid system (Technical & Price bid) for the purchase of the following stores as per specifications given below from the manufacturers/ authorized distributors/ dealers/ contractors registered with DGS&D for **Supply of Digital Recording Console are invited.**

S.No.	Item Description	Qyt.
1.	**Digital Recording Console (12 channel) (Specification attached)**	**02 nos.**

Consignee: The Dy. Director General (E)
NBH, All India Radio, New Delhi-110001

1. The quotation should specifically mentioned **Make, Type & full details of the items provided by manufacturer.** Delivery date, terms and condition of supply. The prices should be firm and given as under:-

a) The rate/unit price of the item should be clearly indicated in the tender enquiry.

b) Prices quoted should be F.O.R. destination NBH AIR, New Delhi and inclusive of charges as packing, customs, etc., wherever applicable.

2. In case of quotation of F.O.R. Station of dispatch basis, the purchaser will not pay separately transit insurance and the supplier will be responsible until the stores arrive in good condition at the destination. Tender/ quotation in which transit insurance has been specified by the firm as an additional item of expenditure is liable to be ignored.

3. **PROCEDURE FOR SUBMISSION OF SEALED TENDERS:**
The tenderers must submit their tenders as required in two parts in separate sealed covers prominently super-scribed as Part-I/ (Technical Bid) and Part-II/ (Price Bid), also indicating on each of the cover, tender no. and date and time as mentioned above. You may submit Bid Security Deposit of Rs. 20,000/- (Twenty thousand only) by way of account payee Demand Draft / Banker's cheque from any of the commercial banks in an acceptable form, payable in favour of **DDO, All India Radio, Delhi payable at New Delhi**

4. Tenderer has to mention, if he has supplied similar/ same item to AIR any time before. Tender having such information would be given preference.

5. Some parts of specs can be relaxed if quoted item or its previous model from the same manufacture is already working satisfactory in AIR network for atleast 5 year. Tenderer has to submit details.

PART-I

BID SECURITY (BS)(COVER-I)- Bid Security of **Rs. 20,000/-** (Rupees twenty thousand only) as mentioned above shall be placed in Cover-I. BS furnished by all unsuccessful tenderers shall be refunded normally within one week of acceptance of award of work by successful tenderer. BS shall not carry any interest. BS by the tenderer will be forfeited if the tenderer revokes his tender within the validity period or increases his earlier quoted rates or the tenderer does not commence the work within 45 days after award of the order. The quotations are liable to be rejected if submitted without exact amount of EMD/BS at the time of opening of Technical Bids.

TECHNICAL BID (COVER-II) : All technical details for the scope of work, the complete details regarding essential qualifications as asked for under qualifying requirements, deviations if any etc. shall be enclosed in Part-I/Technical Bid along with the copy of tender specifications and with other annexure duly signed and stamped as a token of acceptance of tender condition.

PART-II

PRICE BID (COVER-III): Tenderers may please note that the prices shall be submitted alongwith the tender.

These three separate cover i.e.: Cover-I, II & III shall together be enclosed in a fourth envelope and this sealed cover shall be super scribed **with Tender no. Due Date and Time** and submitted to this office.

6. No printed terms and conditions of tendering firms will be considered. Firm has to follow all the terms and conditions as mentioned in the tender enquiry by the purchaser.

7. GUARANTEE/ WARRANTEE PERIOD: It should either be atleast one year or more. Tenderers has to be mention in the Technical Bid.

8. **TERMS OF DELIVERY OF STORES**: The delivery of the entire stores at AIR's site shall be completed within 45 days from the date of placement of order or as mentioned in the Purchase Order. The powers of extension of delivery period are vested with the sanctioning authority. Firms representatives be present during the installation & testing.

9. **TERMS OF PAYMENT**: The payment of the material will be made only after receiving the material in good physical condition or after testing the goods in the circuit.

10. The quotation should be sent in a sealed cover addressed to the Assistant Engineer, Room No. 606, O/O the Dy. Director General (E) NBH, AIR, New Delhi-110001, so as to reach on or **before 03.00 p.m. on 05.03.2013.**

THE COVER SHOULD BE SUPERSCRIBED WITH THE FOLLOWING:

a. Material for which quotations are enclosed.
b. Reference to letter of enquiry.
c. Due date of opening quotation.

11. The quotations will be opened in this office **at 3.30p.m. on 05.03.2013** in the presence of tenderers or their agents such as they may choose to attend.

12. QUOTATIONS NOT PROPERLY SUPERSCRIBED WILL NOT BE ENTERTAINED.

13. The quotations submitted shall remain open for acceptance for a period of **90 (ninety days** from the date of opening of the tender. If any tenderer/ suppliers withdrawn his tender/ quotation before the said period or makes any modifications in the Terms & Conditions on the tender/ quotation which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at the liberty to forfeit the Earnest Money as aforesaid.

14. Both the **PAN (Permanent Account Number) and TIN (Tax Identification Number)** should be definitely indicated in your quotation.

15. Any type of tax which is applicable shall be mentioned separately in the quotation. Where this is not mentioned, claim for any type of tax will not be admitted at any later stage and may not be granted whatsoever.

16. The test certificate of the material is essential to be enclosed with the supply. This office can also ask for the test certificate of the manufacturer's in specific case. The Goods are subjected to Inspection before acceptance.

Quantity may be altered at any time. Actual quantity will be intimated in supply order.

17. RIGHT OF ACCEPTANCE: The sanctioning authority reserves the right to reject the lowest tender or all the tenders without assigning any reasons whatsoever and the right for change the quantity of material tendered depending upon the actual requirements. The unit rate quoted on the tender shall be applicable for the quantity for which order is placed. All quotations / tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected. On the physical appearance of the material during supply, if it is realize that rates quoted by the firms are not justified then the justification for the same can be asked.

18 Canvassing whether directly or indirectly, in connection with tender/ quotation is strictly prohibited and the tender/ quotation submitted by the contractors/ suppliers who resort to canvassing will be liable to rejection.

19 This information is also available on AIR net www.allindiaradio.org.

Yours faithfully,

12.02.13

Jitendra Sarswat
Astt. Engineer,
For DDG (E)

(35)

Prasar Bharati
(Broadcasting Corporation of India)
Broadcasting House: All India Radio,
New Delhi- 110001

TECHNICAL SPECIFICATION FOR DIGITAL RECORDING CONSOLE:

1. GENERAL

1.1 This specification is for Digital Audio Recording Console for use in Production studios of All India Radio. The consoles shall be fully digital modular plug-in design and based on the field proven modern technology. It should be rugged in construction and suitable for reliable operation. 24 hrs. a day and 365 days in a year.

Only professional and branded products manufactured by reputed companies in sound broadcasting equipment field shall be offered.

1.2 The tenderer must submit the following documents along with the tender:

a) **A point-to-point compliance statement as per Annexure-I highlighting deviations, if any, on all the clauses of specification from the manufacturer of the offered equipment duly signed in original. Actual performance figures should be quoted under remarks column. If compliance statement is in format other that** Annexure, the tender will be rejected out rightly.

b) Detailed printed literature of the equipment giving complete electrical and mechanical data including detailed dimensions and mounting requirements.

c) The quote should either be from the original manufacturer or from their authorized representative/ dealer. In case, the quote is from the authorized representative / dealer, a certificate in original from the original manufacturer that the tenderer is authorized representative / dealer for India should be enclosed with the tender. In case, the quote is from both i.e. Authorized representative/ dealer and also from original manufacturer, the quotation from original manufacture will be considered for technical evaluation.

1.3 The tenderer may be required to demonstrate the functioning of the tendered unit during technical evaluation verification of electrical performance parameters as may be required during technical evaluation, in New Delhi. Non-compliance of equipment demonstration, if asked for by the indenter, shall disqualify the tender.

1.4 Incomplete offers will be rejected out rightly.

2. SCOPE OF THE TENDER

The specification is for supply of digital recording console (Including equipment rack for mounting of electronics part of the console. If such a design console is offered) along with all accessories, mating connectors and cables, etc. required to be fully functional.

3. TECHNICAL SPECIFICATIN

3.1 General Features:

3.1.1 The console should be simple in operation.

3.1.2 The Console should be compact ergonomically designed professional product and suitable for reliable operation on 24x7x365 basis working. It should be housed in rust-proof pre-painted metal cabinet. It may either be single composite unit or the main electronics portion may be in separate 19 inch rack mountable unit.

3.1.3 The console should be suitable for tabletop mounting.

3.1.4 The layout of modules / parts/ components in the console should be professional to permit easy access to the wiring, inspection, repairs/ servicing.

3.1.5 All the inputs and outputs should be available in 3-pin XLR or 'D' type connector for digital and on balanced 3-pin XLR for analog audio. The mating pins of 'D' connectors should be gold plated.

3.1.6 All switches/ buttons/ knobs operable by operator should be sturdy and designed for reliable operation for long hours. Inputs/ outputs and connectors shall not be on the working/ operating area of the console surface.

3.1.7 The controls for output bus assignment, channel on/off, monitoring level control, talkback and signaling etc. should be appropriately located on the control surface of the console.

3.1.8 Provision for ganging the mono inputs for stereo operation should also be available.

3.1.9 All selection points on the console surface shall be provided with clear illuminated status indication, if required in different colours for easy under standing.

3.1.10 Status indication in different colours, should be provided for signaling, talk-back from other consoles, on air, channel selection, PFL indication, stereo/ Mono and other operations.

3.1.11 Console should have facility to work with computer based studio/ news automation systems.

3.2 Input Fader channel Modules Features.

3.2.7 There should be in-built world clock for synchronization of external digital devices and provision should also exist to synchronize the console from an external world clock or AES/EBU source.

3.2.8 All digital inputs and outputs will be in AES/EBU format and confirm to AES3-1992 signal format.

3.3 Input Configuration:

The consoles shall have minimum 12 faders. In case the frame size is not exactly matching the requirement of 12 input faders, higher frame size may be offered. The minimum requirement of input sources, faders and its configuration are as detailed below:

1.	No. of Faders		12
2.	Provision to connect input sources:		
	(i)	Microphones	
		a) Mono	8
		b) Stereo	Refer to item no. 3.3.13
	(ii)	Line	
		a) Analogue mono line	8 (with further provision to configure as 4 stereo)
		b) Digital	8
3.	It should be possible to feed 4 Digital Stereo line inputs along with 8 mono mike inputs, with a facility to replace each mike input with a mono line input.		

3.3.1 Mono Mike Inputs

All mike channels should have the following provisions.

3.3.1.1 Input Level range adjustable -60 dBu to -35 dBu (Ref. 0 dBU = 0.775V rms) with sensitivity control.

3.3.1.2 Input impedance ≥1 K ohms balanced.

3.3.1.3 Provision to gang two mike channels for feeding stereo (mike) input.

3.3.1.4 Phase reversal switch.

3.3.1.5 Built in switch-able Phantom supply of 48 volts.

3.3.1.6 Provision for muting of various monitoring speakers as detailed in section 3.12

3.3.1.7 Pan potentiometer.

3.3.1.8 Selectable inbuilt parametric equalizer with high Q capable of providing a least ±12dB equalization independent in each of three bands, i.e. at low, mid and high audio frequencies.

3.3.2 Mono Line inputs (Analogue)

All mono analogue channels shall have the following features and parameters.

3.3.2.1 Nominal level	+ 4 dBu with headroom of at least 15 dB
3.3.2.2 Maximum input level	+ 24dBu
3.3.2.3 Input impedance	≥ 10K ohms balanced.

3.3.2.4 Balance control in each channel

3.3.3 Digital inputs

All Digital input channels shall have the following features/ parameters:

3.3.3.1 Level reference: 0 dB digital = + 24 dBu analogue

(+ 4 dBu = - 20 dB FSD)

3.3.3.2 Signal format — AES-3 of 1992

3.3.3.3 Level: input level — Digital input level should match the analogue (as mentioned in para 3.3.2)

3.3.3.4 Internal sampling rates: — 32kHz, 44.1 kHz and 48 kHz

3.3.3.5 Convertor : — A/D 24-bit, SRC on all digital input

In build sampling rate converter on each digital input channel to accept different Sampling rates.

3.4 Output Configuration:

The console should provide at least 4 independent stereo programme outputs, each in analogue as well as in digital format.

3.4.1 Analogue Output

a)	Nominal output level	+4dBu, adjustable
b)	Max. output level	+ 24 dBu
c)	Output (Source) impedance	≤60 ohms balanced
d)	Output load impedance	600 ohm

3.4.2 Digital output

a)	Level reference	0 dB digital = + 24 dBu analogue
b)	Output level	Digital output level should match the analogue output level as mentioned in para 3.4.1
c)	Output impedance	110 ohms
d)	Conversion	24 bit

3.5 Frequency Response over the entire frequency range of 20 Hz to 20 kHz and at nominal input and nominal output levels.

a)	Mike inputs to program outputs	within ± 0.5 dB
b)	Analogue / digital line inputs to program outputs	within ±0.3 dB

3.6 Total Harmonic Distortion + Noise

a)	Mike pre input to analog output	<0.01%, -35 dBu analog input + 24 dBu analog output, Filter BW 20 kHz
b)	Analog input to analog output	< 0.01%, + 24 dBu input, + 24 dBu output, Filter BW 20 kHz
c)	Digital input to digital output	< 0.01%, 20 Hz to 20 kHz, Filter BW 20 kHz + 0dB, input, + 0dB, Output, filer BW 22 KHz
d)	Digital input to analogue output	< 0.01%, 20 Hz to 20 kHz, Filter BW 20 kHz -1dB input, + 23 dB output, Filter BW 22KHz

3.7 Equivalent Input Noise Level and Signal to Noise ratio.

a) Equivalent input noise for mike channel shall be better than – 125 dBu (for Microphone channels, with nominal input level of –60 dBu and nominal output of +4dBu (rest of the input faders in off position) and measurement band limited to 20 Hz to 20KHz).

b) Signal to Noise Ratio for Line channel ≥80 dB (with nominal input level of + 4 dBu in line channel and + 4dBu output level and rest of the input faders in off position with measurement band limited to 20 Hz -20 kHz)

3.8 Stereo Separation:

Channel separation (Between L&R of same channel), better than 60dB, with maximum input and output at frequency band of 20 Hz to 20 kHz.

3.9 Inter channel cross Talk:

Better than 90 dB, with maximum input and output and measurement band limited to 20 Hz – 20kHz,

3.10 Monitoring Facilities:

3.10.1 Announcer/ Recording booth monitor:

Monitoring signal of 0dBu nominal level should be available for monitoring on external speakers for any one of the programme outputs selected. Headphone monitoring facilities should also be available. Both the monitoring facilities shall have build-in level controls of 10dB. It should be possible to select any of the two external stereo sources on the monitor.

3.10.2 Studio Monitor

Similar monitoring facilities, as under para 3.10.1, should be provided for artists in studio for any one of the programme outputs selected.

3.10.3 PFL Monitor

Facility to monitor all input channels in a built–in PFL speaker as well as on headphone should be provided. PFL speaker as well as headphone should have in-built level control of 10dB.

3.11 Talk-Back

Talkback facility with another console, installed in control room, other studios and dubbing room shall be available. The talk back mike should be preferably in-built.

3.12 Mute Controls

PFL, Talkback and Announcer monitor speakers in Announcer Booth of the studio shall get muted when any mike channel is faded in. Similarly, studio, monitor for artists shall be muted when any artist – mike is faded in.

3.13 Signaling & Warning Lights

a) Provision for a 'red-light' (On-Air) indication on the console surface (by receiving 0 logic controlled from the console in control room) shall be provided.

b) Provision for generating at least two warning light signals (0 logic) controlled from each mike fader.

c) Provision should also exist for generating 'green light for sending ready signal in control room by extending '0' logic.

3.14 Metering

Two numbers of LCD/LED indicators to provide the VU as well as PPM (selectable) should be available to monitor the level on any of the output buses.

3.15 Power Supply

3.15.1 The console shall work on 230V ±10%, 50Hz ±6% single-phase AC supply.

3.15.2 The power supply unit of the console should be protected against overload, short circuit and over-voltage.

3.15.3 Power supply unit / module should either be external (19 inch rack mountable) or in case of internal, temperature of console front surface should be comfortable when power is ON.

3.16 Climatic Conditions.

The console will generally be installed in air-conditioned environment. However, the console should perform satisfactorily in the dry temperature range of 5°C to 40°C and humid conditions prevailing in tropical climate. A test certificate in this regard should be produced from an approved Test House.

3.17 Accessories.

Each console shall be supplied with following accessories/ Items and their cost shall be included in quotation.

3.17.1 19 Inch mounting rack should be provided if the electronics of the console is separate from the table top of the console.

3.17.2 A complete set of mating connector (with gold plated contacts) and power chord etc.

3.17.3 A set of operation manual and service manual.

3.17.4 Any other item, including interconnecting cables and related configuration software (Pre-loaded and on Media CD/DVD) for console etc. required for making the console fully, operational.

4. GUARANTEE/ WARRANTY

4.1 The equipment shall be guaranteed for trouble free operation for a minimum period of one year from the date of supply. Replacement/ servicing shall be effected free of cost for hardware and software during the guarantee period.

4.2 The contractor/ seller hereby guarantee that the said goods/ stores/ articles would continue to conform to the description and quality aforesaid for a period of 36 months from the date of installation and commissioning at the consignee's site, if during the aforesaid period of 36 months the said goods/ stores/ articles be discovered not to conform to the description and quality aforesaid, the purchaser shall be entitled to call upon the contractor/ seller to rectify goods/ stores/ articles or such portion thereof as is found to be defective by the purchaser with a reasonable period or such specified period as may be allowed by the purchaser in his discretion on application made thereof by the contractor / seller and in such an event the above mentioned warranty period shall apply to the goods/ stores/ articles rectified from the date of rectification warranty period shall apply to the contractor / seller pay to the purchaser such compensation as may arise by reasons of the breach of the warranty herein contained.

4.3 Guarantee that firm will supply spare parts, if and when required on the agreed price. The agreed basis could be including but without any limitation on agreed discount on the published catalogue or an agreed percentage of profit on the landed cost.

4.4 Warranty to the effect that before going out of production for the spare parts they will give adequate advance notice to the purchaser of the equipment so that latter may undertake the balance of the life time requirements.

4.5 Warranty to the effect that firm will make available the blue prints of the drawings of the spares, if and when required in connection with the main equipment.

5. SPARES

The essential recommended spares should be quoted separately. The list should include name and part no. with quantity and its unit cost. The tenderer shall ensure availability of spares in India for the quoted equipment for a period of at least 5 year from the date of supply of the equipment. The cost for software upgrade, if any, shall also be quoted as an option.

6. ELECTROMAGNETIC COMPATIBILITY

The console shall conform to the electromagnetic standards that are listed in the guidelines 89/ 336/ EC & FCC Part 15. The certificate from independent test laboratory regarding compliance to the aforesaid standard should be attached with the technical bid.

7. TRAINING

The tenderer shall be required to train at least 2 AIR persons on operation, maintenance and repair of the equipment.

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28/11/12